

Editors

David Bentley

Sanger Centre

Richard Gibbs

Baylor College of Medicine

Eric Green

National Center for Human Genome

Research, NIH

Richard Myers

Stanford University School of Medicine

Editorial Board

Rakesh Anand

Zeneca Pharmaceuticals

Johannes Bos

University of Utrecht

Anne Bowcock

University of Texas Southwestern Medical

Center

Jeff Chamberlain

University of Michigan Medical School

Nicholas Dracopoli

National Center for Human Genome

Research, NIH

Joe Ecker

University of Pennsylvania

Ray Fenwick

Dianon Systems, Inc.

Kenshi Hayashi

National Cancer Center Research Institute,

Tokyo

Bernhard Horsthemke

University of Essen

Pieter de Jong

Lawrence Livermore National Laboratory

David Kemp

Menzies School of Health Research

Mary-Claire King

University of California, Berkeley

Ulf Landegren

University of Uppsala Medical Center

Doug Marchuk

Duke University Medical School

Chris Mathew

UMDS Guy's & St. Thomas' Medical and

Dental School

David Nelson

Baylor College of Medicine

Debbie Nickerson

University of Washington School of Medicine

Svante Pääbo

University of Munich

Lena Peltonen

University of Helsinki

Eric Spitzer

SUNY at Stony Brook

Lap-Chee Tsui

Hospital for Sick Children, Toronto

Rick Wilson

Washington University School of Medicine

Steven Wolinsky

Northwestern University School of Medicine

Maria Zapp

University of Massachusetts Medical Center

Managing Editor

Judy Cuddihy

Cold Spring Harbor Laboratory Press

August, 1994
Volume 4, Number 1

RESEARCH

1 **A New Diagnostic Test for Gaucher Disease Suitable for Population Screening**
 Sameer A. Sakallah, Carol Sansieri, David W. Kopp, David L. Cooper, and John A. Barranger

6 **Development of a Sensitive PCR to Detect Allele Loss in a Model Hematopoietic Neoplasm**
 Jeffrey Fairman, David Claxton, Cheryl L. Willman, Albert B. Deisseroth, and Lalitha Nagarajan

13 **Determining Relative Microsatellite Allele Frequencies in Pooled DNA Samples**
 H. Khatib, A. Darvasi, Y. Plotski, and M. Soller

19 **PCR with End Trimming and Cassette Ligation: A Rapid Method to Clone Exon-Intron Boundaries and a 5'-upstream Sequence of Genomic DNA Based on a cDNA Sequence**
 Hiroyuki Iwahana, Toshiyuki Tsujisawa, Rumi Katashima, Katsuhiko Yoshimoto, and Mitsuo Itakura

26 **A Novel Method to Quantitate Methylation of Specific Genomic Regions**
 Mervi Heiskanen, Ann-Christine Syvänen, Harri Siitari, Sinikka Laine, and Aarno Palotie

31 **Computing Genetic Similarity Coefficients from RAPD Data: The Effects of PCR Artifacts**
 Warren F. Lamboy

38 **Computing Genetic Similarity Coefficients from RAPD Data: Correcting for the Effects of PCR Artifacts Caused by Variation in Experimental Conditions**
 Warren F. Lamboy

TECHNICAL TIPS

44 **PCR-based Method to Map the Bending Locus of DNA Molecules**
Fernando Valle

46 **A Simple PCR Method for Screening cDNA Libraries**
Dominique Alfantari and Thierry Darribère

50 **Comparison of Gel Matrices for Resolving PCR-amplified DNA Fingerprint Profiles**
Guohao He, C. S. Prakash, Robert L. Jarret, Sadik Tuzun, and Jiansheng Qiu

52 **A Nonisotopic Single-strand Conformation Polymorphism Protocol Using a Direct Blotting Electrophoresis, a Chemiluminescent Detection System, and a Multiplex Approach**
Hans Knoblauch, Norbert Weiss, Irmgard Eggersdorfer, Christiane Keller, and Herbert Schuster

56 **A DNA Extraction Method that Allows Reliable PCR Amplification of MLO DNA from "Difficult" Plant Host Species**
Karen Gibb and Anna Padovan

59 **Buffer Components Tailor DNA Amplification with Arbitrary Primers**
G. Caetano-Anollés, B.J. Bassam, and P.M. Gresshoff

(continued)